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(54) Title: ISOLATED NUCLEIC ACIDS OF THE P-HYDE FAMILY, P-HYDE PROTEINS, AND METHODS OF INDUCING SUSCEPTIBILITY TO INDUCTION OF CELL DEATH IN CANCER

(57) Abstract: This invention provides isolated nucleic acid of the p-Hyde gene, analogs, fragments, mutants, and variants thereof of the p-Hyde family. The invention provides polypeptides, fusion proteins, chimerics, fusion proteins, antisense molecules, antibodies, and uses thereof. Also, this invention is directed to a method of inducing susceptibility to apoptosis with p-Hyde, a method of suppressing tumor growth with p-Hyde, and a method of treating a subject with cancer with p-Hyde alone or in combination with radiation, chemotherapy, or UV mimetic drugs. The invention also relates to the therapy of human cancers which have a mutation in the p-Hyde gene, including gene therapy, protein replacement therapy and protein mimetics. The invention further relates to the screening of drugs for cancer therapy. Finally, the invention relates to the screening of the p-Hyde gene for mutations, which are useful for diagnosing the predisposition to cancer.

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